Gibbs and Co. will apparently ask potential claimants to complete a confidential questionnaire and will then offer a free consultation with the firm. According to one of the firm's partners, the firm will try to provide assistance to those employees who feel they have genuine claims but do not have union support to pursue their claims. *See Bristol Evening Post*, January 29, 1993.

SCIENTIFIC/TECHNICAL ITEMS

UPCOMING MEETING

[53] "Indoor Air Quality and Respiratory Disease," London, England, April 14, 1993

This one-day conference is expected to focus on respiratory health problems including asthma and lung cancer, in the context of indoor air quality. Speakers will include Martin Jarvis, who will present "Exposure to Passive Smoking: The Evidence from Measures of Cotinine," and Peter Lee, who will present "Environmental Tobacco Smoke and Lung Cancer." Other presentations will focus on scientific considerations on indoor/outdoor air quality, indoor allergens and childhood asthma, airways hypersensitivity, respiratory virus infections, and birds and diseases.

The conference is sponsored by Indoor Air International in association with the Medical Research Council Toxicology Unit and the Centre for Toxic Waste Management, Imperial College of Science, Technology & Medicine.

CARDIOVASCULAR ISSUES

[54] "The Heart: A Target Organ for Cigarette Smoking," A. Leone, *Journal of Smoking-Related Disorders* 3(3): 197-201, 1992 [See Appendix A]

The author of this article reports briefly on several studies on "the role of smoking on the cardiovascular system." He includes a study of cardiac performance during exercise, in which men were exposed to a "smoking environment." The author claims that the study subjects "showed impaired cardiac performance" when exposed to smoke.

RESPIRATORY DISEASES AND CONDITIONS — CHILDREN

[55] "Drug Consumption During the First 18 Months of Life of Infants from Smoking and Non-smoking Families," A. Hakansson and C. Petersson, *British Journal of General Practice* 42: 362-365, 1992 [See Appendix A]

The authors of this Swedish study report on drug consumption by infants, in relation to "social variables," including parental smoking. They report that infants from smoking families were prescribed significantly more antibiotics than were infants from non-smoking families. Treatment for respiratory tract infections was also reportedly higher in infants from smoking families.

OTHER HEALTH ISSUES

[56] "Risk Factors for Atrial Septal Defect," J. Tikkanen and O.P. Heinonen, *European Journal of Epidemiology* 8(4): 509-515, 1992 [See Appendix A]

This study focuses on environmental factors during pregnancy as possible risk factors for atrial septal defect, a malformation of the heart, in infants. The authors present statistically nonsignificant odds ratios for ETS exposure at home or at work.

OTHER DEVELOPMENTS

AUSTRALIA

[57] ◆ Shopping Centre to Introduce Smoking Ban

Brookside Shopping Centre in Brisbane will reportedly be the first in the area to introduce a total smoking ban. The ban will cover shoppers as well as the 1,500 employees at the centre's 107 stores. The ban will go into effect on March 31, 1993, and smoking shelters will be provided outdoors for workers to smoke during their breaks. The policy is reportedly being adopted following successful legal challenges by individuals allegedly claiming injury from ETS exposure. Other centres in the area have no immediate

plans to follow Brookside's lead. *See North West News*, January 20, 1993.

In a related story, the manager of the Tweed City Shopping Centre is calling for Tweed City and the Gold Coast to adopt smoking bans in shopping centres. He is apparently pushing for shopping centre owners to impose smoke-free policies in concert and praises the owner of the Pacific Fair Shopping Centre which has announced that smoking bans will be phased in at its 17 properties during the next 12 months. The chairman of the Australian Council of Shopping Centres is reportedly predicting that all centres will be smoke free within a year. Liability issues are apparently foremost among the concerns of shopping centre owners. *See Goldcoaster*, January 16, 1993.

Westfield's 22 shopping centres are also reportedly considering adopting smoking bans. Apparently, centre owners fear litigation in the wake of the U.S. EPA Risk Assessment on ETS. *See Northern News*, January 21, 1993. Chermside Shopping Centre, however, has no plans to ban smoking despite the actions being considered or taken by other centres. *See Northside Chronicle*, January 27, 1993.

Canada

[58] Antismoking Activist Pickets McDonald's

According to press reports, a McDonald's customer has launched a campaign to force the restaurants to ban smoking. McDonald's reportedly reserves about two-thirds of its seating for nonsmokers and responded to the antismoking picketing activities of customer Bram Cohen by stating that the restaurant will continue to provide smoking areas for those customers who wish to smoke, unless precluded from doing so by law. *See The Gazette (Montreal)*, February 4, 1993.

Czechoslovakia

[59] WHO Recommends Smoking Bans to Protect Nonsmokers

Meeting in Prague, a delegation of the World Health Organization reportedly said the Czech republic should take steps to reduce tobacco smoking in the workplace and in public places to protect nonsmokers from ETS exposure. According to the group, smoking in Czechoslovakia has "worsened" in the last three years in comparison to the developed countries of Western Europe. *See CTK National News Wire*, February 5, 1993.

European Community

[60] EC Finances Sick Building Syndrome Project

The *Wall Street Journal* reports that the EC will be largely financing a $1.9 million project to study IAQ in office buildings. The project's goal is reportedly to "defeat Sick Building Syndrome." A 29-year-old Dutch scientist, Dr. Philomena M. Bluyssen, will apparently be the project coordinator.

Bluyssen is said to be a "bit of a star in the arcane world of Indoor Air Quality." She reportedly uses "sophisticated sniffing" methods to track down causes of IAQ problems and her "services as a sniffing sleuth are in demand."

The EC project, dubbed the "IAQ Audit," will involve training panels of people to sniff scientifically and rate the perceived IAQ inside buildings. Each panel will sniff six buildings in each of nine countries. Bluyssen plans to write an IAQ handbook using the data once the project has been completed.

A Yale University environmental health professor, interviewed for the article, was critical of Bluyssen's methods stating, "There is no clear way to verify whether trained sniffers produce valid results." He said that nasal judgments should be combined with other types of testing. *See Wall Street Journal*, February 8, 1993.

Japan

[61] Railway Company Adopts Smoking Restrictions

East Japan Railway Co. will reportedly begin implementing smoking restrictions in its 349 stations near Tokyo and its 24 major stops in eastern Japan within the next month. As early as March 1, 1993, customers will be permitted to smoke only in designated areas. The new policy will reportedly affect some 15 million daily passengers. The company is also reportedly planning to extend the restrictions to 376 other stations where smoking is now permitted during certain hours.

According to press reports, smoking bans are already in effect in Sagami Railway Co. stations in Tokyo and in subway stations. Designated nonsmoking sections on the Tokaido Shinkansen super express lines between Tokyo and Hakata, Fukuoka Prefecture, will apparently be increased to 45 percent from the present 30 percent on March 18. *See Japan Economic Newswire*, February 1, 1993.

[62] Antismoking Group Marks Anniversary

The "Group to Establish Non-smoking Rights" reportedly marks its 15th anniversary this month. The group lobbies for smoking bans in public places and has proposed launching an antismoking education program in high schools. Begun by a small group of doctors, lawyers and company employees in Tokyo in 1978, the group currently boasts a membership of 100,000. *See The Daily Yomiuri*, February 5, 1993.

South Africa

[63] Stiff Fines Face Smokers Who Light Up on Public Buses

Smoking has reportedly been banned on all public buses in Johannesburg. Violators face fines of up to $650 or six months in jail. *See The Star*, December 3, 1992.

United Kingdom

[64] Booklet on Indoor Air Quality Attacks ETS

The Scottish Office of the Environment Department has produced a booklet on IAQ in the home which states: "smoking of course is a major cause of air pollution in the home." The booklet also discusses carbon monoxide, radon, asbestos, dust, mold, lead and other toxic substances. The advice given to homeowners with regard to ETS is to not smoke at home, particularly in the presence of children. Ventilation is also recommended, but the booklet concludes that "ventilation alone does not adequately safeguard against exposure to environmental tobacco smoke."

[65] Government Funded Project Launches Antismoking Initiatives

The West Yorkshire Smoking and Health project has reportedly been launched to introduce more smoke-free areas in the region. The project, funded by the government, will make clean-air awards to pubs and restaurants, will encourage employers to recognize the rights of their nonsmoking employees, and will stress the alleged dangers to nonsmokers from ETS exposure. According to health coordinator Pat Hodgson, some local organizations take the issue seriously, but much more needs to be done to protect nonsmokers. A smoking ban was reportedly introduced on Keighley and District Travel service buses three years ago. *See Keighley News*, January 22, 1993.

[66] Hospital Announces Intent to Discriminate Against Smokers

The Royal Liverpool University Hospital reportedly plans to ask job applicants whether they smoke or drink and will withdraw sickness benefits from those who take time off with smoking or drink-related illnesses. Although smoking is already restricted at the facility, the new policy calls for the adoption of a total smoking ban. Union officials are reportedly promising to fight the changes which they believe have been prompted by the award of damages in the case of Veronica Bland for injury allegedly caused by ETS exposure. *See The Independent*, February 8, 1993; *Sunday Telegraph*, February 7, 1993.

[67] Survey of Doctors Shows Lack of Advice to Patients About ETS

The British Medical Association has reportedly surveyed family practitioners regarding the advice they are giving their patients regarding exposure of the fetus and young children to ETS. Apparently, doctors wish to help their patients stop smoking but most do not discuss the alleged adverse effects of ETS exposure with their pregnant patients. *See The Independent*, February 3, 1993.

In a related story, it has been reported that a urine test may soon be available that will demonstrate to parents that their children are being exposed to ETS. The test, which measures the level of cotinine and other forms of nicotine in a child's urine, is being developed in the Wolfson Laboratory at the Queen Elizabeth Medical Centre in Birmingham. *See The Independent*, February 2, 1993.

[68] Supermarket Giant Will Impose Smoking Ban

Supermarket giant Asda will reportedly impose a smoking ban at its head office in Leeds on March 1. An emergency smokeroom on the top floor will apparently be provided for those who wish to smoke, and hypnotists will be brought in to assist staff members who wish to quit. The ban is reportedly being imposed to protect nonsmokers from continuous exposure to ETS. *See Press Association Newsfile*, February 5, 1993.

[69] Newspaper Promotes Anti-Smoking Campaign

An advertisement appearing recently in a newspaper encourages anyone who is a "victim of passive smoking" to send in for stickers saying "Please Don't Smoke Near Me," which the newspaper and a television program are providing free of charge. The stickers are intended to be used in the home, car, office, or workplace, or are to be given to friends. *See Today*, January 29, 1993.

[70] Teletext Viewers Favor Workplace Smoking Bans

Some 80 percent of Teletext viewers who were invited to phone in their views on workplace smoking following reports on the settlement reached in the Veronica Bland case apparently voted "yes" in answer to the question "Should smoking be banned in the workplace?" The poll is one in a regular series carried out by Teletext.

According to press reports, a growing number of employers are seeking information on the issue of ETS; the Institute of Personnel Management has said that there has been a "flurry" of requests for its guide *Smoking Policies at Work* since news of the Bland story became public. The union which represented Bland, NALGO, has also reported numerous requests for information from private companies and insurance companies. *See Press Association Newsfile*, February 1, 1993.

[71] Predictions of Voluntary Workplace Smoking Bans Follow Settlement in Veronica Bland Case

According to press reports which followed up stories on the settlement reached between Veronica Bland and her employer, offices and factories all over Britain will soon be imposing workplace smoking bans to avoid a "flood of similar actions," and paying out "thousands of pounds to victims of passive smoking." *See Today*, January 28, 1993.

[72] ASH Claims More Employers Move to Ban Smoking

According to a press report, Abbey National will join those businesses which ban smoking by establishing a ban in all of its offices beginning in April. A survey found that 80 percent of the staff were nonsmokers. ASH claims that half of Britain's companies have banned smoking in public areas to avoid the alleged danger of ETS exposure. Barclays Bank reportedly bans smoking during busy periods, and the BBC leaves it up to local managers to decide whether to impose smoking bans. *See The London Times*, January 28, 1993.

[73] Major Suburban Rail System Bans Smoking

In January, Network Southeast, a major suburban rail system, reportedly banned smoking on all trains. *See Agence France Presse*, February 3, 1993. The policy had been under consideration at the end of last year. *See* issue 37 of this Report, December 18, 1993.

MEDIA COVERAGE

CANADA

[74] "For Rent: Healthy Building," D. Jones, *The Financial Post*, January 23, 1993

According to the author of this article, some building owners in Halifax are aggressively seeking tenants by marketing the "healthy" IAQ of their buildings. Poor IAQ and "sick building syndrome" are apparently creating problems for building designers, contractors and owners in Canada, and the Building Owners and Managers Association of Canada is reportedly conducting seminars and workshops throughout the nation to inform members about IAQ issues. The author observes that Camp Hill Hospital in Halifax is embroiled in a series of lawsuits regarding liability for renovations in a facility that has allegedly affected the health of some 600 employees.

UNITED KINGDOM

[75] ◆ *Financial Times* Articles Report Smoking Ban Regulations in U.S. are Imminent

In two articles discussing the alleged health effects of ETS exposure, it was reported that federal regulations

will soon be issued in the U.S. as a result of the EPA Risk Assessment on ETS that will "make it mandatory for companies with more than 10 employees to prohibit smoking" in the workplace. According to one of these articles, U.K. employers may join the move to ban smoking in the workplace, although the Confederation of British Industry is reportedly adamant that this should be a matter for individual employers to decide. *See Financial Times*, January 27 & 28, 1993.

[76] "Passive Smoking Dangers?," *Yateley & District Courier*, January 20, 1993

This article summarizes the materials being reprinted by the smokers' rights group FOREST which indicate that the studies showing a risk to health from ETS exposure are based upon "bias and shoddy research." The article highlights the fact that the criticism of the ETS studies appeared in an independent report published by *Consumers' Research.*

[77] "Health Fascists Try to Stub Me Out," J. di Giovanni, *Sunday Times*, January 31, 1993

In this article, the author observes that the "fervent anti-smoking lobby in America has taken on Orwellian dimensions and it is quickly spreading around the world." She describes a recent visit to the United States where she was generally reviled for smoking in public and subjected to extensive smoking restrictions.

The Veronica Bland case is discussed, as is the workplace smoking bill that was introduced in parliament by Labour MP George Foulkes. The author asserts that anti-smoking activities are taking place throughout the world even though, in her opinion, the medical evidence regarding ETS exposure is unsubstantial.

APPENDIX A

The numbers assigned to the following article summaries correspond with the numbers assigned to the synopses of the articles in the text of this Report.

IN THE UNITED STATES

SCIENTIFIC/TECHNICAL ITEMS

ETS EXPOSURE AND MONITORING

[21] "Passive Smoking and Tobacco Chewing Among Alaska Children: Measuring Saliva Cotinine," R.A. Etzel, D.B. Jones, C.M. Schlife, J.R. Lyke, F.W. Spierto, and J.P. Middaugh, *Journal of Smoking-Related Disorders* 3(2): 161-165, 1992

"Our study objective was to document passive smoking and the use of smokeless tobacco among young children in rural Alaska by measuring saliva cotinine concentrations."

"The study population lived in the Yukon-Kuskokwim delta of western Alaska. The subjects of this study were 106 children, three to six years of age, who were attending Head Start programmes in two rural Alaskan communities."

"The following five questions about tobacco use were asked:

1) How many people in the household where the child lives smoke cigarettes?
2) About how many packs of cigarettes are smoked a day by all the people in the house where the child lives?
3) About how many hours a day does this child spend indoors in a place where people are smoking?
4) Does this child chew tobacco?
5) About how many times a day does this child chew tobacco?"

"Cotinine was detected in the saliva of 17 (57%) of the 30 children in this study whose parents reported that the children had been exposed to tobacco smoke. Thirteen (38%) children without reported exposure to tobacco smoke had detectable cotinine, biochemical evidence of exposure."

"Most of the children in this study had concentrations of cotinine less than 10 ng/mL, comparable with those found in other surveys of passive smokers. Although passive smokers usually have cotinine concentrations below 5 ng/mL, heavy passive exposure can result in levels of more than 10 ng/mL. The highest cotinine concentrations previously reported in passively-exposed children were 25 ng/mL and 30 ng/mL. We found it remarkable that three children in this study had concentrations over 100 ng/mL (108.6, 175, and 264 ng/mL). Such high concentrations are incompatible with passive exposure to tobacco smoke only. There are comparable with cotinine concentrations found in adult users of chewing tobacco, who have an average saliva cotinine concentration of 255 ng/mL . . . Thus, we conclude that Native Alaskan children's own use of chewing tobacco probably contributed to these high concentrations."

"The 13 reportedly unexposed children who had detectable cotinine in their saliva could have been exposed to tobacco products within the previous few days without the parents reporting the exposure or perhaps even being aware of it. Likewise, the 13 reportedly exposed children who had no detectable cotinine may have been cared for by non-smokers during the previous few days."

"Both passive smoking and the use of smokeless tobacco are dangerous for young children. This study shows that 44% of 3 to 6-year old children in two rural Alaskan villages have cotinine concentrations consistent with passive smoking, while approximately 3% of them had cotinine concentrations comparable to those of cigarette smokers and users of smokeless tobacco."

[22] "Subchronic Inhalation Study in Rats Using Aged and Diluted Sidestream Smoke from a Reference Cigarette," C.R.E. Coggins, P.H. Ayres, A.T. Mosberg, J.W. Sagartz, and A.W. Hayes, *Inhalation Toxicology* 5: 77-96, 1993

"Male . . . rats were exposed 6 hr/day; 5 days/week for up to 18 weeks to aged and diluted sidestream smoke (ADSS), used as a surrogate for environmental tobacco smoke (ETS), at concentrations of 0.1 ("typical"), 1 ("extreme"), or 10 ("exaggerated") mg of particulates/m^3. . . . Animals were exposed nose-only, inside whole-body chambers, to ADSS from the 1R4F reference cigarette. End points included histopathology, CO

oximetry, plasma nicotine and cotinine, clinical pathology, and organ and body weights. The target particulate concentrations were achieved; at the exaggerated exposure they resulted in CO concentrations in excess of 50 ppm. . . . The only pathological response observed was slight to mild epithelial hyperplasia in the rostral nasal cavity, in the exaggerated exposure group only. No effects were noted at low (typical of measured real-world ETS concentrations) or extreme exposures. The changes were similar in animals killed after 4, 28, or 90 days, and were also similar to those noted in an earlier experiment with only 14 days duration, indicating that the change does not progress with increased exposure duration from 4 to 90 days. The nasal change was absent in a subgroup of animals kept without further smoke exposure for an additional 90 days, indicating complete reversibility. Overall, the end points used in the study demonstrated that (1) there was no detectable biological activity of ADSS at typical or even 10-fold ETS concentrations, and (2) the activity was only minimal at exaggerated concentrations in one region of one organ only."

[23] **"Environmental Tobacco Smoke in Commercial Aircraft," D.J. Eatough, F.M. Caka, J. Crawford, S. Braithwaite, L.D. Hansen, and E.A. Lewis,** ***Atmospheric Environment*** **26A(12): 2211-2218, 1992**

"There has been an increased interest in determining exposure to ETS in commercial aircraft by quantifying the concentrations of pollutants associated with ETS, determining the factors which control the concentrations of ETS present in nonsmoking sections of passenger cabins and developing models for predicting exposure."

"We have measured a variety of compounds associated with ETS as well as several non-unique species (Such as PM2.5 and CO) in both smoking and nonsmoking sections of aircraft cabins. The spectrum of species and aircraft sampled is intended to provide a database for the development of models for the prediction of ETS concentrations in aircraft cabins under a variety of conditions. This paper presents the results obtained from a series of DC-10 flights."

"The concentration of most environmental tobacco smoke constituents in the smoking section of an aircraft cabin can be calculated from the frequency of smoking during a flight, the size of the smoking section and ventilation rate. The concentration of nicotine will tend to be overestimated in this calculation due to selective loss of nicotine to cabin surfaces. The concentration of some constituents (e.g. PM2.5 and CO) may be underestimated in the calculation due to contributions of non-ETS sources to these species. CO and NO_x, as well as ozone, may be introduced to the aircraft cabin from the inlet air. The rate of penetration of environmental tobacco smoke constituents from the smoking section into the nonsmoking section follows a first-order rate law. The rate of penetration was constant for the various DC-10 aircraft flown in this study. The expected rate of decrease in the concentration of various constituents with distance into the nonsmoking section can be altered by selective removal of compounds by cabin surfaces (e.g. nicotine) or by the presence of non-ETS sources of some species in the nonsmoking section (e.g. CO, PM2.5 or NO_x). Additional data are needed to determine what variables control the first-order penetration of environmental tobacco smoke constituents from the smoking to the nonsmoking sections of a variety of aircraft. The model developed in this paper has been successfully applied to other data sets. Manuscripts describing this extension of the concepts presented here are being prepared for publication."

Smoking Polices and Related Issues

[24] **"Smoking Policies of Licensed Child Day-Care Centers in the United States," D.E. Nelson, J.J. Sacks, and D.G. Addis,** ***Pediatrics*** **91(2): 460-463, 1993**

"To our knowledge, the smoking policies and levels of exposure of children to ETS in day-care centers are unknown. We reviewed laws regulating smoking in day-care centers and analyzed data from a national sample of licensed child day-care centers to estimate potential ETS exposure among the estimated 3.94 million children ≤5 years of age regularly cared for in licensed or accredited centers."

"The authors analyzed data from a national survey of 2003 directors of licensed child day-care centers to determine employee smoking policies, measure compliance with state and local employee smoking regulations for child day-care centers and state clean indoor air laws, and to estimate the extent of exposure to environmental tobacco smoke in these settings. Forty states regulated employee smoking in child day-care centers,

but only three states required day-care centers to be smoke-free indoors. More than 99% of licensed child day-care centers had employee smoking policies that complied with the appropriate state or local smoking regulations. Nearly 55% of centers were smoke-free indoors and outdoors, and 26% were smoke-free indoors only."

"Most states have regulations limiting smoking in child cay-care centers, but few require smoke-free policies. We found that nearly all licensed child day-care centers had policies that restricted employee smoking while at work, and the majority of these policies required facilities to be either totally smoke-free or smoke-free indoors. Smaller centers, centers located in the West or South, and independently owned centers were most likely to have stringent employee smoking policies. Most centers had written smoking policies and were willing to hire smokers. Nearly all centers had employee smoking policies that complied with state or local regulations, although 11 states had no such regulations for licensed child day-care centers."

"More than 18% of children attended licensed day-care centers with policies restricting employee smoking to certain times or places. A policy that allows employees to smoke in rooms when children are not present does not adequately protect children from ETS because it takes several hours for ETS to be cleared from an indoor environment. A policy that allows employees to smoke in rooms in which children are prohibited is also unlikely to protect children from ETS. Unless these rooms have a separate air circulation system venting directly to the outdoors (the cost of such a system is prohibitive), ETS will be circulated to all rooms in the buildings. Projecting our results nationally (based on 19.1% of the estimated 3.94 million children ≤5 years of age who attend licensed or accredited day-care centers without smoke-free policies), an estimated 752000 young children are at risk for ETS exposure in these settings."

"Although only Alaska, Arkansas, and Minnesota have laws or regulations stipulating that day-care centers be smoke-free indoors, our data suggest that clean indoor air laws and smoking regulations may be associated with more stringent employee smoking policies in day-care centers. If so, the implication is that state or local regulation of employee smoking in day-care centers would effectively reduce the risk of ETS exposure to children in day-care centers."

"There are limitations to our study. Our results may not be applicable to family day-care homes, which are often unregulated, and therefore may be less likely to have or enforce smoke-free policies. The large number of local clean indoor air laws made it impractical to determine center compliance with these laws. . . . Another limitation is that actual employee smoking practices may differ from reported smoking practices and smoking policies. . . . Finally, no environmental measurements of ETS exposure were conducted."

"Because exposure to ETS has such serious health consequences for children and there is no known safe level of exposure, parents and pediatricians should insist that day-care centers in their communities be at least smoke-free indoors and, preferably, totally smoke-free."

IN EUROPE & AROUND THE WORLD

CARDIOVASCULAR ISSUES

[54] **"The Heart: A Target Organ for Cigarette Smoking," A. Leone, *Journal of Smoking-Related Disorders* 3(3): 197-201, 1992**

"The purpose of this report is to discuss briefly our previous studies and to prove that cigarette smoking damages the heart."

"We studied 19 non-smoking male volunteers. These consisted of nine healthy subjects and 10 patients with previous myocardial infarction. The volunteers underwent exercise stress testing twice; once in a smoke-free environment and once in a smoking environment (carbon monoxide concentration 30-35 ppm)."

"In each studied subject we measured the peak of exercise (Watts), time for recovery to pre-exercise heart rate (min) and plasma (%) and expired carbon monoxide concentrations (ppm). . . . Each subject acted as his own control. No healthy volunteer developed chest pain during stress testing, but we stopped the exercise stress testing of four volunteers with a previous myocardial infarction in the smoking environment because of warning ventricular arrhythmias."

"In summary, we reached the following conclusion. Acute exposure to passive smoking impaired cardiac performance of both survivors of infarction and healthy volunteers. Survivors showed a significant reduction of the peak of exercise, prolonged time to recovery to pre-exercise plasma carbon monoxide concentration and ventricular arrhythmias in a smoking environment. Healthy people showed prolonged time to recovery to pre-exercise heart rate in the same environment. Therefore, both groups showed impaired cardiac performance in a smoking environment, although with different results."

"Cigarette smoking has to be considered a potential hazard of daily life. Smoke inhalation, either active (such as smoking a cigarette) or passive (such as breathing indoor smoke), can cause a severe impairment of cardiac function. The results we discuss in the present overview justify such a statement."

Respiratory Diseases and Conditions — Children

[55] "Drug Consumption During the First 18 Months of Life of Infants from Smoking and Non-smoking Families," A. Hakansson and C. Petersson, *British Journal of General Practice* 42: 362-365, 1992

"The aim of this study was to determine the overall consumption of drugs — particularly antibiotics — in a geographically well defined infant population, from birth up to the routine 18-month check up at the child health clinic. A further aim was to study the association between drug consumption and various social variables, especially the association between 'passive smoking' and the use of antibiotics. In addition, the reliability of the interview method compared with review of medical records was investigated."

"The study population comprised 240 infants, of whom 90 were from families where tobacco was smoked by one or both parents and 150 were from non-smoking families. The investigation was carried out retrospectively by interviewing the mothers at the routine 18-month check up at the child health clinic, combined with study of the medical records at the district health centre, and at the paediatric and ear, nose and throat departments of the nearby hospital."

"[S]ignificantly more infants had been given antibiotics (or other antibacterial agents) in smoking families than in non-smoking families. Infants in smoking families were also given significantly more nose drops and dimethicone/dicyclomine hydrochloride, than infants in non-smoking families. . . . [I]nfants from smoking families had been more affected by respiratory tract infections requiring antibiotics than had infants from non-smoking families in all age groups except the oldest."

"At the 18-month check up [in this study], about two thirds of all infants in Teleborg had been given an antibiotic (or other antibacterial agent) on at least one occasion. The Tierp study [published elsewhere] produced rather lower figures — at the age of two years, 56% of Tierp children had received antibiotics on at least one occasion; at the age of one year, the corresponding figure was 33%."

"The overall drug consumption of the infants in this study would appear to be relatively high. This tendency to treat even very young infants with medication in cases of sudden illness has been demonstrated in a Swedish study of parent-reported drug consumption."

"As regards the association between parents' smoking habits and infant morbidity, particularly respiratory tract infection, the study has demonstrated that infants from smoking families are more often given antibiotics than infants from non-smoking families. The impression that the difference is a real one is strengthened by the higher incidence of respiratory tract infections requiring antibiotic treatment among infants from smoking families in all the three-month age groups except the oldest during the first 18 months of the infants' life and by the fact that the cumulative difference between the groups tended to increase as the infants' age increased."

Other Health Issues

[56] "Risk Factors for Atrial Septal Defect," J. Tikkanen and O.P. Heinonen, *European Journal of Epidemiology* 8(4): 509-515, 1992

"The possible effect of environmental factors during pregnancy on the occurrence of atrial septal defect (ASD-secundum) in the offspring was studied in 50 cases and 756 controls. The cases represented all verified ASDs in Finland during 1982-83. The controls were randomly selected from all infants born

during the same period. Case and control mothers were interviewed by midwives using a structured questionnaire approximately three months after delivery. Congenital heart disease was more prevalent among parents of cases than those of controls. Maternal alcohol consumption during the first trimester of pregnancy appeared to double the risk of atrial septal defect (OR = 1.9, CI_{95} = 1.1-3.4). Maternal exposure to chemicals at work during the first trimester was more prevalent among the ASD-group (40.0%) than the control group (26.2%). The risk of ASD was not associated with maternal smoking, or coffee, tea or acetosalicylic acid consumption."

"Maternal exposure to video display terminals, microwave ovens, organic solvents, anesthetic gases, pesticides or wood preservatives during the first trimester of pregnancy were not associated with the risk of an atrial septal defect. It is concluded that some common physical and chemical exposures during early pregnancy should not necessarily be considered risk factors for atrial septal defect." ["Exposure to passive smoking" was also investigated. For exposure at home, an OR of 1.0 (95% CI 0.5-1.9) was reported; for workplace exposure, the reported OR was 0.5 (95% CI 0.2-1.5).]
